

# HYDRA VIRIDIS.



## CHARACTER GENERICUS.

*Flos.* Os terminale, cinctum *Cirris* fetaceis.

*Stirps* vaga, gelatinosa, uniflora. basi se affigens.

*Lin. Syst. Nat.* p. 1320.

*Class. Vermes. Ord. Zoophyta.*

## CHARACTER SPECIFICUS, &c.

HYDRA tentaculis subdenis brevioribus.

*Lin. Syst. Nat.* p. 1320.

HYDRA VIRIDISSIMA.

*Pall. Zooph.* 3.

*Leeuwenhoek. Aët. Angl.* vol. 23. p. 1494.

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Ecce! redundabit fœcundo vulnere vermis,

Fertilis et damnis dives ab ipsa suis!

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Inter miracula Naturæ justè referuntur variæ generis Hydræ species. Tam ultra fidem singulares sunt earum vita, et propagandi modus, præsertim facultas quam habent vel in frustula dissectæ repullulandi, ut in summo hærent dubio Philosophi; nec horum animalium historia plenam fidem adepta sit, donec experimentis a solertissimis Physicis iterum iterumque factis

factis et omnibus modis variatis, proprietates earum miræ, et primo visu impossibiles, tandem extra omnem dubitationem probatæ essent.

Cum in hoc opere visum fit, res breviter ut possumus, proponere, non longis ambagibus historiam hujus insecti percurramus.

Hydra est animal aquaticum, cujus variæ sunt species; quarum quæ maxime vulgaris est, in tabula depingitur, Hydra nempe viridis Linnæi. In aquis degit imperturbatis, plerumque in fossulis: in rivulis etiam per campos ductis frequens reperitur; præcipue mensibus Martii et Aprilis. Cauda se affigit caulibus plantarum aquaticarum, et paginis inferioribus foliorum. Corpore est longo, tubuloso: capite tentaculis octo seu decem longis, os cingentibus instructo. Corpus ita contrahere potest territa, ut globulum repræsentet; causa vero timoris dempta, rursus in pristinam longitudinem se explicat. Animal valde est vorax; vermiculos aliaque aquas incolentia animalia prædatur. Cum vermiculus, aut aquaticum aliud animal ad Hydram parum fauste accedit, dicto citius eum arripit, brachiis seu tentaculis constringit, ad os attrahit, et ut anguis ranam inhaurit. Ano caret Hydra: omne igitur quod vorat, absorbtis humoribus nutritiis, ab ore ejicit.

Vermiculum bis vel ter seipsam magnitudine superantem devorare facile potest; quod licet plane incredibile videri possit, notandum tamen est Hydram esse corpore valde tensili, et pro rei exigentia mirum in modum dilatato. Hydræ vegetatione sese propagant: junior enim vel duæ vel tres juniores e lateribus parentis erumpunt, ipsæ etiam haud raro fœcundæ antequam

tequam parentem deferunt : ut duas vel tres generationes simul uni animaliad hærentes videre sit. Maxime autem omnium mirabile adhuc indictum est ; nempe quod Hydra in partes dissecta, non destructa sed multiplicata est vulneribus suis ; fabulam de celeberrima antiquorum Hydra verissimam reddens,

“ Fertilis, et damnis dives ab ipsa suis.”

Hydra non præter solitum magna commode in tres partes dividi potest : nempe forficem insinuando intra vitrum in quo servatur Hydra, et arrepta occasione, ad extremum extensam dividendo ; partem etiam posteriorem cum se rursus extenderit, dissecando. Hoc facto, pars posterior novum caput cum tentaculis producet ; anterior pars novam caudam, et media pars novum caput cum tentaculis et nova cauda : elapsisque paucis diebus, omnes æque erunt integræ ac si mansissent invulneratæ. Ut verbo dicam, Hydræ omnibus modis dividi possunt sine injuria, et molestiam moramque frequentium experimentorum renatæ satis remunerabunt. Hydram viridem, utpote speciem apud nos vulgatissimam, pro exemplo selegi : communis ejus longitudo est a quadrante unciae ad semiunciam, exclusis tentaculis ; interdum tamen multo major et longior conspicitur. Mirum hoc animal a Leewenhoeckio circiter finem centuriæ jam elapsæ detectum est, qui tamen ejus proprietates ignoravit. Oblitum videtur esse post Leewenhoeckium usque ad annum millesimum septingentesimum quadragesimum, cum iterum a Domino TREMBLEY repertum est ; qui innumeris experimentis, miras omnes qualitates, et præsertim repullulandi facultatem in lucem protulit. Experimenta

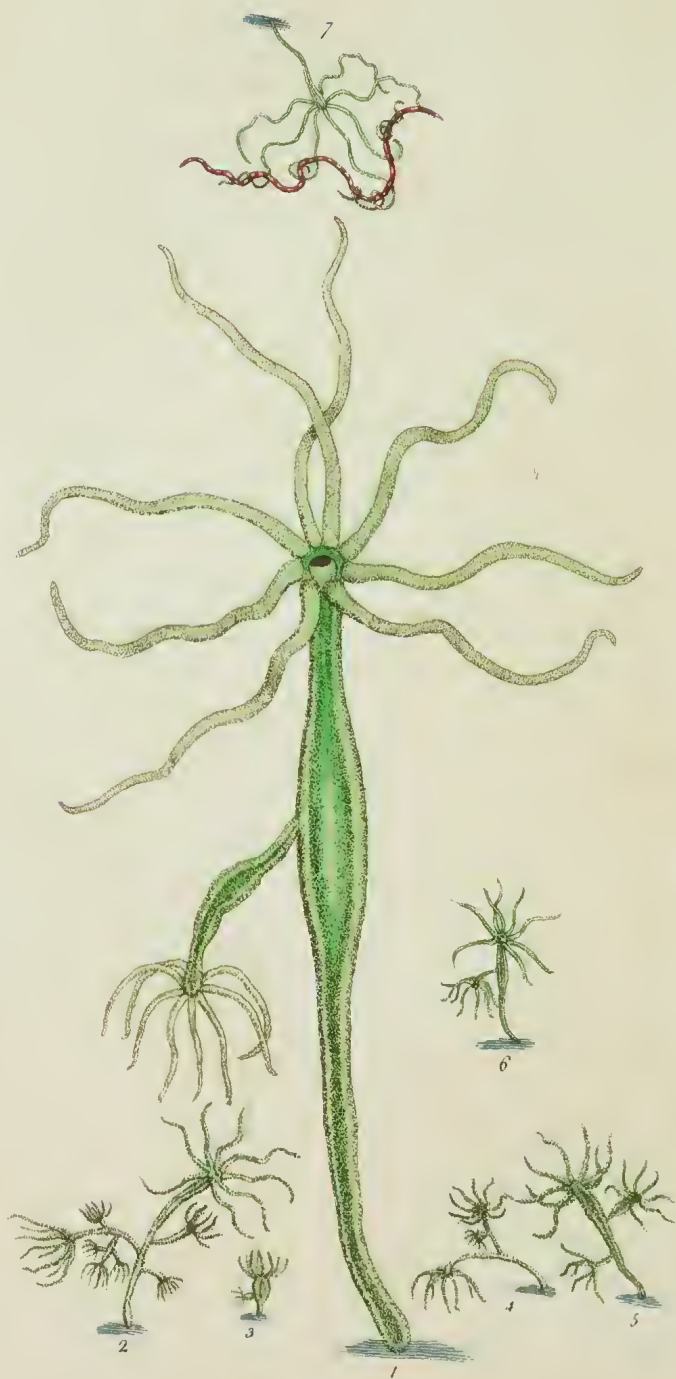
ta hæc cito vulgata sunt, et ab omnibus Europæ Phycis repetita. Hoc modo plures Hydræ repertæ sunt, cum variis aliis animalibus eandem repullulandi potestatem habentibus; et nova velut Epochæ in Historia Naturali exorta est.

*Fig. 1.* Hydra magnitudine aucta.

*Fig. 2, 3, &c.* Hydræ magnitudine naturali; et aliæ leviter auctæ.

*Fig. 7.* Hydra vermiculum arripens.





Pl. 1.

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THE  
GREEN POLYPE,  
OR  
HYDRA.



*GENERIC CHARACTER.*

*Body* long and tubular.

*Mouth* furrounded by arms, or tentacula.

*SPECIFIC CHARACTER.*

POLYPE with about 8 or 10 arms, or tentacula.

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See with new life the wond'rous worm abound,  
Rich from its loss, and fruitful from its wound!

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The various species of Polype, or Hydra, are justly ranked amongst the most wonderful productions of Nature; so extraordinary are the particulars of their life and mode of propagation, as well as their powers of reproduction after being cut in pieces, that at their first discovery the philosophic world was involved in scepticism; and the History of the animals did not obtain complete credit, till experiments repeated by the most diligent and accurate Naturalists, and varied  
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in every possible manner, at length incontestibly proved the truth of their surprising, and seemingly impossible properties.

As it is the intention of this work to give as short descriptions as the nature of the subject can admit of, we shall, in our account of this animal, only relate in very plain and brief terms the general history of the creature.

The Polype is an aquatic animal, of which there are several species : of these one of the most common is that represented on the annexed plate ; *viz.* the Green Polype, or Hydra Viridis of Linnæus. It is a native of clear waters, and may generally be found in great plenty in small ditches and trenches of fields ; especially in the months of April and May. It affixes itself by the tail to the under part of the leaves, and to the stalks of such vegetables as happen to grow immersed in the same water. The animal consists of a long tubular body, the head of which is furnished with eight, and sometimes ten long arms, or tentacula, which surround the mouth or opening. It is capable of contracting its body in a very sudden manner when disturbed ; so as to appear only like a roundish green spot ; and when the danger is over, it again extends itself as before. It is of an extremely predacious nature, and feeds on the various species of small worms, and other water-animals which happen to approach : when any animal of this kind passes near the Polype, it suddenly catches it with its arms, and dragging it to its mouth, swallows it gradually in the same manner as a snake swallows a frog. The Polype has no  
anus



anus or vent ; it therefore again evacuates the remains of the animal on which it has preyed, by its mouth. It is capable of swallowing a worm of twice or thrice its own size ; which at first appears incredible ; but is easily understood when we consider that the Polype's body is extremely extensile, and is dilated on such occasions to a surprising degree.

The usual manner in which Polypes propagate is by vegetation ; one or two, or even more young ones emerging gradually from the sides of the parent animal ; and frequently these young ones are again prolific before they drop from the parent ; so that it is no uncommon thing to see two or three generations at once on the same animal. But the most astonishing particular is yet untold ; *viz.* that if a Polype is cut in pieces, it is not destroyed but multiplied by its wounds, and what was said of the fabulous Hydra of the ancients, is here literally true ;

“Fertilis et damnis dives ab ipfa suis.” \*

A Polype of the common size may be very conveniently cut in three pieces, by taking the opportunity, when the creature is fully extended, of introducing a pair of scissars gently into the glass in which it is kept, and dividing it suddenly ; and when the tail-part is again extended, repeating the same operation : in this case the tail-part will produce a new head and arms, the head-part a new tail, and the middle part will reproduce both head, and arms, and tail ; and all these will in a few days become as perfect, except in length,

as

\* Rich from its loss, and fruitful from its wound.

as the animal was at first. In short, Polypes may be cut in all directions and in every manner that can be conceived, without injuring them; and will amply repay the trouble attending the experiments by the astonishing views which they will exhibit during their different degrees of growth.

As the green Polype is one of the most common animals of the kind in this country, we have selected it as the best and most familiar example of the genus: Its most general length is from a quarter to half an inch, when extended, exclusive of the arms; but sometimes it grows to a much greater extent. The first discovery of this animal was towards the end of the last century by Leewenhoeck; but he was not acquainted with its extraordinary properties of reproduction. It seems to have been neglected after Leewenhoeck's observation, 'till the year 1740, when Mr. TREMBLEY of Geneva again discovered it; and by innumerable experiments was convinced of its reproductive nature. His experiments were soon made public; were repeated by all the Naturalists of Europe; several other species were discovered, as well as many other animals which possess the same power of reproduction, and a new Era commenced in the annals of Natural History.

*Fig. 1.* A Polype magnified.

*Fig. 2, 3, &c.* Polypes, some in their natural size, and others slightly magnified.

*Fig. 7.* A Polype seizing a worm.